Search for prior art. clear. 1/5/07

10/531,4952 Yong Chu 1-5-2007

\$%^STN; HighlightOn=; HighlightOff=;

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NEWS 30 DEC 27 CA/CAplus enhanced with more pre-1907 records

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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FILE 'HOME' ENTERED AT 15:00:25 ON 05 JAN 2007

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FULL ESTIMATED COST 0.21 0.21

FILE 'REGISTRY' ENTERED AT 15:00:45 ON 05 JAN 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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STRUCTURE FILE UPDATES: 4 JAN 2007 HIGHEST RN 916790-89-1 DICTIONARY FILE UPDATES: 4 JAN 2007 HIGHEST RN 916790-89-1

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http://www.cas.org/ONLINE/UG/regprops.html

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23 29 13 13 13

chain nodes :

6 7 8 9 12 13 14 17 18 20 23 24

ring nodes:
1 2 3 4 5
chain bonds:

1-13 2-8 2-9 3-6 5-7 5-12 12-20 13-14 14-17 14-18 20-23 20-24

ring bonds :

1-2 1-5 2-3 3-4 4-5

exact/norm bonds :

1-2 1-5 1-13 2-3 2-8 2-9 3-4 4-5 14-17 14-18 20-23 20-24

exact bonds :

3-6 5-7 5-12 12-20 13-14

G2:H,Ak

G3:C,N

G4:0,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:CLASS 9:CLASS 12:CLASS

13:CLASS 14:CLASS 17:CLASS 18:CLASS 20:CLASS 23:CLASS 24:CLASS

Generic attributes :

6:

Saturation : Unsaturated

7:

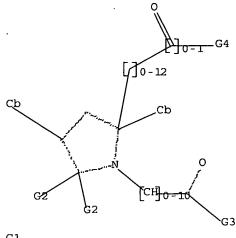
Saturation : Unsaturated

L1 STRUCTURE UPLOADED

=> d

L1 HAS NO ANSWERS

L1 STR



G1 G2 H,Ak G3 C,N G4 O,N

Structure attributes must be viewed using STN Express query preparation.

=> s l1 SAMPLE SEARCH INITIATED 15:01:52 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 136724 TO ITERATE

1.5% PROCESSED 2000 ITERATIONS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*

BATCH \*\*INCOMPLETE\*\*

0 ANSWERS

PROJECTED ITERATIONS: 2712637 TO 2756323

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 full FULL SEARCH INITIATED 15:02:04 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 2733890 TO ITERATE

23.8% PROCESSED 651366 ITERATIONS 112 ANSWERS

34.5% PROCESSED 942184 ITERATIONS 473 ANSWERS

36.4% PROCESSED 993987 ITERATIONS . 473 ANSWERS

36.6% PROCESSED 1000000 ITERATIONS 473 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.54

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*

BATCH \*\*INCOMPLETE\*\*

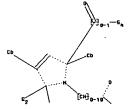
PROJECTED ITERATIONS: 2733890 TO 2733890

PROJECTED ANSWERS: 1186 TO 1400

L3

473 SEA SSS FUL L1

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chain nodes :

6 7 8 9 12 13 16 17 19 20 21

ring nodes : 1 2 3 4 5

chain bonds :

1-12 2-8 2-9 3-6 5-7 5-19 12-13 13-16 13-17 19-21 19-20

ring bonds :

1-2 1-5 2-3 3-4 4-5

exact/norm bonds :

1-2 1-5 1-12 2-3 2-8 2-9 3-4 4-5 13-16 13-17 19-21 19-20

exact bonds :

3-6 5-7 5-19 12-13

G2:H,Ak

G3:C,N

G4:0,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:CLASS 9:CLASS 12:CLASS

13:CLASS 16:CLASS 17:CLASS 19:CLASS 20:CLASS 21:CLASS

Generic attributes :

6:

Saturation : Unsaturated

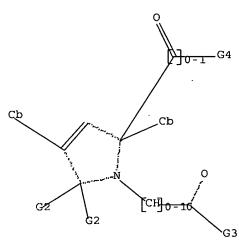
7:

Saturation : Unsaturated

L4 STRUCTURE UPLOADED

=> d

L4 HAS NO ANSWERS STR L4



G1

G2 H,Ak

G3 C, N

G4 O, N

Structure attributes must be viewed using STN Express query preparation.

=> s 14

SAMPLE SEARCH INITIATED 15:04:43 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED -99226 TO ITERATE

2.0% PROCESSED

2000 ITERATIONS

0 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*

\*\*INCOMPLETE\*\* BATCH

PROJECTED ITERATIONS:

1965831 TO 2003209

PROJECTED ANSWERS:

0 · TO

L5

0 SEA SSS SAM L4

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chain nodes :

6 7 8 9 10 11 14

ring nodes :
1 2 3 4 5
chain bonds :

1-6 3-8 5-9 5-10 6-7 6-14 10-11

ring bonds :

1-2 1-5 2-3 3-4 4-5

exact/norm bonds :

1-2 1-5 1-6 2-3 3-4 4-5 6-7 6-14 10-11

exact bonds : 3-8 5-9 5-10

G1:C,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:Atom 9:Atom 10:CLASS

11:CLASS 14:CLASS
Generic attributes:

8:

Saturation : Unsaturated

9:

Saturation : Unsaturated

L6 STRUCTURE UPLOADED

=> d

L6 HAS NO ANSWERS

L6 STR

10/531495

Structure attributes must be viewed using STN Express query preparation.

=> s 16

SAMPLE SEARCH INITIATED 15:12:37 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 24121 TO ITERATE

8.3% PROCESSED 2000 ITERATIONS

1 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.02

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 473127 TO 491713

33 TO PROJECTED ANSWERS: 449

L7 1 SEA SSS SAM L6

=> s 16 full

FULL SEARCH INITIATED 15:12:51 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 483375 TO ITERATE

477221 ITERATIONS 98.7% PROCESSED

342 ANSWERS

342 ANSWERS 100.0% PROCESSED 483375 ITERATIONS

SEARCH TIME: 00.00.22

342 SEA SSS FUL L6 L8

=> file caplus

COST IN U.S. DOLLARS SINCE FILE TOTAL

ENTRY SESSION

FULL ESTIMATED COST 352.75 352.96

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=> s 18

L9 7 L8

=> d ibib abs tot

ANSWER 1 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN 2006:1009710 CAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 145:377211

Preparation of 2,5-dihydropyrrole compound containing TITLE:

piperidine moiety as mitotic kinesin inhibitor

INVENTOR(S): Coleman, Paul J.; Cox, Christopher D.; Hartman, George

PATENT ASSIGNEE(S): Merck & Co., Inc., USA SOURCE:

PCT Int. Appl., 98pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

GΙ

PAT	PATENT NO.						DATE		i	APPL	ICAT:	ION I	NO.		D	ATE	
						-									-		
WO	2006	1017	80		Al		2006	0928	Ţ	WO 2	006-1	JS861	74		2	0060	310
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		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	KΡ,	KR,
		ΚZ,	LC,	LK,	LR,	LS,	LŢ,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,
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	SG, SK, SI					SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,
		VN,	YU,	ZA,	ZM,	zw											
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		IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
		CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	GH,
	CF, CG, CI GM, KE, LS					MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
	KG, KZ, MD						TM										
PRIORITY	PRIORITY APPLN. INFO.:								Į	US 2	005-	6625	19P		P 2	0050	316
OTHER SO	THER SOURCE(S):						145:	3772	11.								
~																	

<sup>\*</sup> STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Title compds. I [p = 0-3; q = 0-2; R1 = aryl, heterocyclyl, alkyl, etc.; saidAΒ aryl, heterocyclyl and alkyl is optionally substituted with halo, CN, OH, etc.; R2 = halo, CN, OH, etc.; R3 = H, alkyl, aryl, etc.; said alkyl and aryl is optionally substituted with halo, CN, OH, etc.; R5 = H, alkyl, aryl, etc.; said alkyl and aryl is optionally substituted with halo, CN, OH, etc.; R6 = H, halo, CN, etc.; W = bond, C:O, C:S, etc.; provided that at least one silicon atom is present in the compd., and further provided that -W-R5 is not -alkyl-O-Si(alkyl)3.], pharmaceutically acceptable salts or stereoisomers thereof were prepd. For example, Pd/C catalyzed de-benzyloxycarbonylation of compd. II [R = tert-butyldimethylsilyl; R' = benzyloxycarbonyl], e.g., prepd. from benzyl 4-oxo-1-piperidinecarboxylate in 7 steps, followed by treatment with trifluoroacetic acid and reaction with 3-chloropropyltrimethylsilane afforded compd. II [R = H; R' = 3-trimethylsilylpropyl]. In kinesin ATPase in vitro assays, compd. II [R = H; R' = 3-trimethylsilylpropyl] exhibited the IC50 value of .ltoreq.50 .mu.M. Compds. I are claimed useful for the treatment of brain cancer, stomach cancer, etc.

REFERENCE COUNT:

1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2005:1171050 CAPLUS Full-text

DOCUMENT NUMBER:

143:440255

TITLE:

A process for the preparation of 2,2-disubstituted

pyrroles

INVENTOR(S):

Javadi, Gary; Karady, Sandor; Maeda, Kenji; Miller,

Ross A.; Szumigala, Ronald H.

PATENT ASSIGNEE(S):

SOURCE:

Merck & Co., Inc., USA

PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

LANGUAGE:

Patent English

Englis

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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	WO 2005				A2	_	2005	1103							2	0050	415
	WO 2005	1029	96		<b>A3</b>		2006	0119									
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		GE,	GH,	GM,	HR,	ΗÜ.,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	ΚP,	KR,	ΚZ,
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		NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,
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PRIO	RIORITY APPLN. INFO.:								1	US 2	004-	5635	83P		P 2	0040	419
									1	WO 2	005-1	US13	630	1	W 2	0050	415

OTHER SOURCE(S):

MARPAT 143:440255

GΙ

$$R_{102}C$$
 $C_{02}R^{2}$ 
 $R_{3n}$ 
 $C_{10}$ 
 $R_{10}$ 
 $R_{$ 

AB A process for the prepn. of title compds. of formula I [R1, R2 = independently (un) substituted (cyclo) alkyl, aryl or heterocyclyl;R3 = H, halo, cyano, hydroxy, etc.; n = 1 or 2] comprising reacting a compd. of formula II (R1-R3 and n are defined as above) with a halogenating agent in an aq. solvent is disclosed. For example, III was provided in a multi-step synthesis starting from (R)-2-phenylglycine. The crystal structure of (3R,4S)-3-fluoro-N,1-dimethylpiperidin-4-amine.bul.2HCl was also obtained. I are useful as intermediates in the prepn. of 2,2,4-trisubstituted 2,5-dihydropyrroles, that are inhibitors of mitotic kinesin (no data).

L9 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2005:182653 CAPLUS Full-text

DOCUMENT NUMBER:

142:280064

TITLE:

Preparation of dihydropyrrolecarboxamides as mitotic

kinesin inhibitors for treating cancer

INVENTOR(S):

Coleman, Paul J.; Cox, Christopher D.; Garbaccio,

Robert M.; Hartman, George D.

PATENT ASSIGNEE(S):

SOURCE:

Merck & Co., Inc., USA

PCT Int. Appl., 187 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT	PATENT NO.					D	DATE		;	APPL	ICAT	ION	NO.		D	ATE	
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US	US 2005043357				Al		2005	0224	1	US 2	004-	9157	43		2	0040	811
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CA	2534	065			A1	200	50303	CA	2004-	2534	065		2	0040	811
EP	1664	026			A1	200	50607	EP	2004-	7807	91		2	0040	811
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NO	2006	00119	94		Α	200	50505	NO	2006-	1194			2	0060	314
PRIORIT	Y APP	LN.	INFO	. :				US	2003-	4956	37P		P 2	0030	815
								US	2004-	5635	80P		P 2	0040	419
								US	2003-	5126	80P		P 2	0031	020
								US	2004-	5635	86P		P 2	0040	419
								WO	2004-	US25	980	1	W 2	0040	811
								WO	2004-	US26	012	1	w 2	0040	811
									_		_				

OTHER SOURCE(S):

MARPAT 142:280064

GI

$$\begin{bmatrix} R^4 \\ n \\ R^1 \\ N \\ O \\ R^{10} \\ R^{10} \\ R^{10} \end{bmatrix}_t$$

$$R^{10} \\ R^{10} \\ R^{10}$$

The present invention relates to dihydropyrrole compds. I [R1, R2 = H, alkyl, aryl, etc.; R3 = H, alkyl, CH2OH, etc.; R4 = CO2H, halo, CN, etc.; R5 = H, halo, CN, etc.; R10, R11 = F, CH2F; R12, R13 = H, CH2F; R14 = absent, oxo; n = 0-3; t = 0-2; u = 0-1] that are useful for treating cellular proliferative diseases, for treating disorders assocd. with KSP kinesin activity, and for inhibiting KSP kinesin. E.g., a multi-step synthesis of II, which showed an IC50 of .ltoreq. 50 .mu.M in kinesin ATPase in vitro assay, was given. The invention is also related to compns. which comprise these compds. I, and methods of using them to treat cancer in mammals.

REFERENCE COUNT:

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2005:177831 CAPLUS Full-text

DOCUMENT NUMBER:

142:280071

TITLE:

Preparation of dihydropyrrolecarboxamides as mitotic

kinesin inhibitors for treating cancer

INVENTOR(S):

Coleman, Paul J.; Cox, Christopher D.

PATENT ASSIGNEE(S):

Merck & Co., Inc., USA

SOURCE:

PCT Int. Appl., 177 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

F	PATENT NO.						DATE			APPL	ICAT:	ION I	NO.		מם	ATE	
-											<b>-</b> -		<del>-</del> ·	<b>-</b> -	-		
	NO 2005						2005		,	WO 2	004-1	US25	964		2	0040	811
V	NO 2005	01854	47		<b>A</b> 3		2005	0915									
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		ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	ΰĠ,	US,	UZ,	VC,	VN,	YÜ,	ZA,	ZM,	ZW
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I	AU 2004	2666:	29		A1		2005	0303		AU 2	004-	2666	29		2	0040	811
C	CA 2533	889			A1		2005	0303		CA 2	004-	2533	889		2	0040	811
	EP 1656				A2		2006	0517		EP 2	004-	7807	49		2	0040	811
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# \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

The present invention relates to dihydropyrrole compds. I [R1, R2 = H, alkyl, aryl, etc.; R3 = H, alkyl, CH2OH, etc.; R4 = CO2H, halo, CN, etc.; R5 = H, halo, CN, etc.; R10 = H, F; R11, R12 = F, CH2F; R13, R14 = H, CH2F; R15 = absent, oxo; n = 0-3; t, u = 0-2] that are useful for treating cellular proliferative diseases, for treating disorders assocd. with KSP kinesin activity, and for inhibiting KSP kinesin. E.g., a multi-step synthesis of a mixt. of II and III, which showed an IC50 of .ltoreq. 50 .mu.M in kinesin ATPase in vitro assay, was given. Over 260 compds. I were claimed. The invention is also related to compns. which comprise these compds. I, and methods of using them to treat cancer in mammals.

L9 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2005:158826 CAPLUS Full-text

DOCUMENT NUMBER:

142:261392

TITLE:

Preparation of pyrrole derivatives as mitotic kinesin

inhibitors

INVENTOR(S):

Coleman, Paul J.; Cox, Christopher D.

PATENT ASSIGNEE(S): SOURCE:

Merck & Co., Inc., USA PCT Int. Appl., 98 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

#### PATENT INFORMATION:

	PATENT NO.						)	DATE		ž	APPL	ICAT:	I NOI	· 01		D	ATE		
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	WO	2005	0171	90		A2		2005	0224	1	WO 2	004-1	US262	242		2	00408	311	
	WO	2005	0171	90		A3		2005	1215								•		
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	ΑU	2004	2645	3 3		A1		2005	0224	i	AU 2	004-	2645	3 3		2	0040	311	
	CA	2534	729			A1		2005	0224	(	CA 2	004-	2534	729		2	0040	311	
	EР	1656	133			A2		2006	0517	1	EP 2	004-	7809	97		2	0040	811	
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	CN 1835746							2006	0920	(	CN 2	004-	8002	3308		2	0040	811	
	US 2006287302							2006	1221	1	US 2	006-	5680	00		2	0060	210	
PRIOF	RIORITY APPLN. INFO.:						•			1	US 2	003-	4954	56P		P 2	0030	815	
										1	WO 2	004-1	US26:	242	1	W 2	0040	811	
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OTHER SOURCE(S):

MARPAT 142:261392

GI

Title compds. represented by the formula I [wherein R1, R2 = independently H, (un)substituted (cyclo)alkyl, aryl, heterocyclyl; R3 = H, alkyl(hydroxy), alkenyloxyalkyl, etc.; R4 = independently (carbonyl)(oxy)alkyl, carboxy, OH, etc.; R5 = H, halo, CN, etc.; R10 = F or CH2F; R11, R12 = independently H or CH2F; Rx = absent or oxo; m = 0-2; n = 0-3; and pharmaceutically acceptable salts or stereoisomers thereof] were prepd. as mitotic kinesin inhibitors (no data). For example, I (R1 = R2 = Me, R3 = CH2OH, R4 = 2,4-F2, R5 = R10 = R12 = H, R11 = F, Rx = absent, n = 0) was given in a multi-step synthesis starting from .alpha.-allyl-.alpha.-phenylglycine Et ester. The title compds. and their pharmaceutical compns. are useful as mitotic kinesin inhibitors, esp. KSP kinesin inhibitors, for the treatment of cellular proliferative diseases and disorders assocd. with KSP kinesin activity, such as cancer in mammals (no data).

L9 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:140806 CAPLUS Full-text

DOCUMENT NUMBER: 142:240324

TITLE: A preparation of pyrrolecarboxamide derivatives,

useful as mitotic kinesin inhibitors

INVENTOR(S): Coleman, Paul J.; Cox, Christopher D.; Garbaccio,

Robert M.; Hartman, George D.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 52 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

PATENT INFORMATION:

FAMILY ACC. NUM. COUNT:

PA	PATENT NO.						DATE			APPL	ICAT	ION 1	NO.	•	D.	ATE	
US	2005						2005	0217		US 2	004-	9160:	96		2	0040	811
WO	2005	0192	05		Al		2005	0303	1	WO 2	004-1	US25:	980		2	0040	811
	W:	ΑE,	AG,	AL,	AM,	AT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,
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BR	2004	0135	80		Α		2006	1017	•	BR 2	004-	1358	0		2	0040	811
. NO	2006	0011	94		Α		2006	0505		NO 2	006-	1194			2	0060	314
PRIORITY	Y APP	LN.	INFO	. :			•			US 2	003-	4956	37P		P 2	0030	815
										US 2	003-	5126	80P		P 2	0031	020
										US 2	004-	5635	86P		P 2	0040	419
										WO 2	004-	US25	980		W 2	0040	811
OTHER SO	OURCE	(S):			CAS	REAC	T 14	2:24	0324	; MA	RPAT	142	:240	324			

### \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

The invention relates to a prepn. of pyrrolecarboxamide derivs. of formula I [wherein: R1 is H, alkyl, aryl, or heterocyclyl, etc.; R2 is 4-piperidinyl deriv.; R3 is H, alkyl, alkdiyl-OH, alkdiyl-O-alkyl, or alk(en/yn)diyl-C(O)-NH2, etc.; R4 is CO2H, halogen, CN, or OH, etc.; R5 is H, CO2H, CN, halogen, or OP(:O)(OH)2, etc.], useful for treating cellular proliferative diseases, for treating disorders assocd. with KSP kinesin activity, and for inhibiting KSP kinesin. The invention is also related to compns. which comprise these compds., and methods of using them to treat cancer in mammals. For instance, pyrrolecarboxamide deriv. II (kinesin ATPase in vitro assay: IC50 < 50 .mu.M) was prepd. via amidation of carbamoyl chloride III by amine IV (conversion of III to the product was >98%).

ACCESSION NUMBER:

2004:368866 CAPLUS Full-text

DOCUMENT NUMBER:

140:391193

TITLE:

Preparation of dihydropyrroles as mitotic kinesin

inhibitors for treating cellular proliferative

INVENTOR(S):

Breslin, Michael J.; Coleman, Paul J.; Cox,

Christopher D.; Hartman, George D.; Mariano, Brenda J.

PATENT ASSIGNEE(S):

SOURCE:

Merck & Co., Inc., USA PCT Int. Appl., 178 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.		APPLICATION NO.	DATE
WO 2004037171 WO 2004037171	A2 20040506	WO 2003-US32405	20031014
		BA, BB, BG, BR, BY,	BZ, CA, CH, CN,
		DZ, EC, EE, EG, ES,	
		IS, JP, KE, KG, KR,	
LS, LT, LU,	LV, MA, MD, MG,	MK, MN, MW, MX, MZ,	NI, NO, NZ, OM,
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CA 2500848	A1 20040506	CA 2003-2500848	20031014
AU 2003287057	A1 20040513	AU 2003-287057	· 20031014
EP 1556052	A2 20050727	EP 2003-777578	20031014
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JP 2006506456	T 20060223	JP 2005-501618	20031014
US 2006100191	A1 20060511	US 2005-531495	20050415
PRIORITY APPLN. INFO.:		US 2002-419570P	P 20021018
·	•	US 2003-479712P	
		WO 2003-US32405	W 20031014
OTHER SOURCE(S):	MARPAT 140:3911	93	

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Me2N-

Title compds. I [wherein Rl = (un) substituted acyl(alkyl), carbamoyl(alkyl), AΒ sulfamoyl(alkyl), aryl, heterocyclyl, alkyl, etc.; R2 and R6 = independently (un)substituted aryl(alkyl), cycloalkyl, or heterocyclyl; R3 = (un)substituted alkoxyalk(en/yn)yl, carbamoylalk(en/yn)yl, alkylsulfonylalk(en/yn)yl, etc.;

II

R4, R5, and R7 = independently H or (un) substituted (cyclo) alkyl, alkenyl, alkynyl, perfluoroalkyl, arylalkyl, or heterocyclyl; or R5 and R7 are combined to form an oxo or sulfoxo; or pharmaceutically acceptable salt of stereoisomer thereof] were prepd. for treating cellular proliferative diseases, for treating disorders assocd. with KSP kinesin activity, and for inhibiting KSP kinesin. The invention is also related to compns. which comprise these compds., and methods of using them to treat cancer (no data). For instance, palladium catalyzed Suzuki coupling of 7a-phenyldihydro-1H-pyrrolo[1,2cl[1.3]oxazole-3,6(5H)-dione (multi-step prepn. given) and 2,5difluorophenylboronic acid afforded 6-(2,5-difluorophenyl)-7a-phenyl-5,7adihydro-1H-pyrrolo[1,2-c][1,3]oxazol- 3-one. The pyrrolooxazolone was treated with NaOH in EtOH to give the (hydroxymethyl)pyrrole, which was O-protected with tert-butyldimethylsilyl chloride. Reaction of the pyrrole with triphosgene and dimethylamine, followed by deprotection using triethylamine trihydrofluoride in MeCN provided II. In a kinesin ATPase assay using a human KSP motor domain construct and microtubules from bovine brain tubulin, example compds. inhibited the ATPase hydrolysis reaction with IC50 .ltoreq. 50 .mu.M.

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chain nodes :

6 7 8 9 10 13 15 16 17

ring nodes : 1 2 3 4 5 chain bonds :

1-6 3-8 5-9 5-10 6-7 6-13 10-15 15-16 15-17

ring bonds :

1-2 1-5 2-3 3-4 4-5

exact/norm bonds :

1-2 1-5 1-6 2-3 3-4 4-5 6-7 6-13 15-16 15-17

exact bonds :

3-8 5-9 5-10 10-15

G1:C,N

G2:0,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:Atom 9:Atom 10:CLASS

13:CLASS 15:CLASS 16:CLASS 17:CLASS

Generic attributes :

8:

Saturation : Unsaturated

9:

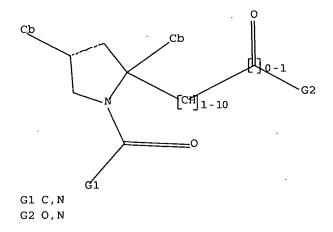
Saturation : Unsaturated

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L10 HAS NO ANSWERS

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Structure attributes must be viewed using STN Express query preparation.

3 ANSWERS

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SAMPLE SEARCH INITIATED 15:30:35 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 26448 TO ITERATE

7.6% PROCESSED 2000 ITERATIONS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 519232 TO 538688

PROJECTED ANSWERS: 416 TO 1170

L11 3 SEA SSS SAM L10

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FULL SEARCH INITIATED 15:30:57 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 528555 TO ITERATE

98.6% PROCESSED 521231 ITERATIONS 470 ANSWERS

100.0% PROCESSED 528555 ITERATIONS 470 ANSWERS

SEARCH TIME: 00.00.22

L12 470 SEA SSS FUL L10

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L13 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2006:1009710 CAPLUS Full-text

DOCUMENT NUMBER:

145:377211

TITLE:

Preparation of 2,5-dihydropyrrole compound containing

piperidine moiety as mitotic kinesin inhibitor

INVENTOR(S):

Coleman, Paul J.; Cox, Christopher D.; Hartman, George

PATENT ASSIGNEE(S):

SOURCE:

Merck & Co., Inc., USA

PCT Int. Appl., 98pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATI	ENT I	NO.			KIN	<b>D</b>	DATE			APPL	ICAT:	ION I	NO.		D	ATE	
						-							<b></b> ·			<b>-</b> -	
WO 2	2006	10178	80		A1		2006	0928	1	WO 2	006-1	US86	74		20	0060	310
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		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	ΚP,	KR,
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		MZ, NA, NO			NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,
		SG,	SK,	SL,	SM,	SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,
		VN,	YU,	ZA,	ZM,	zw											
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		IS,	IT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,
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		KG,	ΚZ,	MD,	RU,	ТJ,	TM										
RITY	APP	LN.	INFO	. :					•	US 2	005-	6625	19P	]	P 2	0050	316

PRIORITY APPLN. INFO.:

OTHER SOURCE(S):

MARPAT 145:377211

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Title compds. I [p = 0-3; q = 0-2; R1 = aryl, heterocyclyl, alkyl, etc.; saidAB aryl, heterocyclyl and alkyl is optionally substituted with halo, CN, OH, etc.; R2 = halo, CN, OH, etc.; R3 = H, alkyl, aryl, etc.; said alkyl and aryl is optionally substituted with halo, CN, OH, etc.; R5 = H, alkyl, aryl, etc.; said alkyl and aryl is optionally substituted with halo, CN, OH, etc.; R6 = H, halo, CN, etc.; W = bond, C:O, C:S, etc.; provided that at least one silicon atom is present in the compd., and further provided that -W-R5 is not -alkyl-O-Si(alkyl)3.], pharmaceutically acceptable salts or stereoisomers thereof were prepd. For example, Pd/C catalyzed de-benzyloxycarbonylation of compd. II [R = tert-butyldimethylsilyl; R' = benzyloxycarbonyl], e.g., prepd. from benzyl 4-oxo-1-piperidinecarboxylate in 7 steps, followed by treatment with trifluoroacetic acid and reaction with 3-chloropropyltrimethylsilane afforded compd. II [R = H; R' = 3-trimethylsilylpropyl]. In kinesin ATPase in vitro assays, compd. II [R = H; R' = 3-trimethylsilylpropyl] exhibited the IC50 value of .ltoreq.50 .mu.M. Compds. I are claimed useful for the treatment of brain cancer, stomach cancer, etc.

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 1 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2005:1171050 CAPLUS Full-text

143:440255

DOCUMENT NUMBER:

TITLE: A process for the preparation of 2,2-disubstituted

pyrroles

INVENTOR (S): Javadi, Gary; Karady, Sandor; Maeda, Kenji; Miller,

Ross A.; Szumigala, Ronald H.

PATENT ASSIGNEE(S): Merck & Co., Inc., USA SOURCE: PCT Int. Appl., 48 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	PATENT NO.						DATE		1	APPL	ICAT	ION	NO.		D	ATE	
						-								<del>-</del>	-		
WO	2005	1029	96		A2		2005	1103	1	WO 2	005-1	US13	630		2	0050	415
WO	2005	1029	96		<b>A</b> 3		2006	0119									
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KP,	KR,	ΚZ,
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,
	NI, NO, N				OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,
	SM, SY, TO				TM,	TN,	TR,	TT,	TZ,	UA,	ÜĠ,	US,	UZ,	VC,	VN,	YU,	ZA,
	ZM, ZW																
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
		ΑZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IS,	IT,	LT,	LU,	MC,	NL,	PL,	PT,
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,
		MR,	NE,	SN,	TD,	TG											
AU	AU 2005236066						2005	1103		AU 2	005-	2360	66		2	0050	415
PRIORITY	PRIORITY APPLN. INFO.:								1	US 2	004-	5635	83P		P 2	0040	419
									1	WO 2	005-	US13	63.0		W 2	0050	415
OTHER SO	THER SOURCE(S):					PAT	143:	4402	55								

$$R_{102}C$$
 $C_{02}R^{2}$ 
 $R_{3n}$ 
 $R_{3n}$ 
 $C_{1}$ 
 $R_{10}$ 
 $R_{1$ 

AB A process for the prepn. of title compds. of formula I [R1, R2 = independently (un) substituted (cyclo) alkyl, aryl or heterocyclyl;R3 = H, halo, cyano, hydroxy, etc.; n = 1 or 2] comprising reacting a compd. of formula II (R1-R3 and n are defined as above) with a halogenating agent in an aq. solvent is disclosed. For example, III was provided in a multi-step synthesis starting from (R)-2-phenylglycine. The crystal structure of (3R,4S)-3-fluoro-N,1-dimethylpiperidin-4-amine.bul.2HCl was also obtained. I are useful as intermediates in the prepn. of 2,2,4-trisubstituted 2,5-dihydropyrroles, that are inhibitors of mitotic kinesin (no data).

L13 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2005:182653 CAPLUS Full-text

DOCUMENT NUMBER:

142:280064

TITLE:

Preparation of dihydropyrrolecarboxamides as mitotic

kinesin inhibitors for treating cancer

INVENTOR(S):

Coleman, Paul J.; Cox, Christopher D.; Garbaccio,

Robert M.; Hartman, George D..

PATENT ASSIGNEE(S):

SOURCE:

Merck & Co., Inc., USA

PCT Int. Appl., 187 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:
FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	·			
WO 2005019206	A1	20050303	WO 2004-US26012	20040811
W: AE, AG,	AL, AM, AT	, AU, AZ,	BA, BB, BG, BR, BW,	BY, BZ, CA, CH,
CN, CO,	CR, CU, CZ	, DE, DK,	DM, DZ, EC, EE, EG,	ES, FI, GB, GD,
GE, GH,	GM, HR, HU	, ID, IL,	IN, IS, JP, KE, KG,	KP, KR, KZ, LC,
LK, LR,	LS, LT, LU	, LV, MA,	MD, MG, MK, MN, MW,	MX, MZ, NA, NI,
NO, NZ,	OM, PG, PH	, PL, PT,	RO, RU, SC, SD, SE,	SG, SK, SL, SY,
TJ, TM,	TN, TR, TT	, TZ, UA,	UG, US, UZ, VC, VN,	YU, ZA, ZM, ZW
RW: BW, GH,	GM, KE, LS	, MW, MZ,	NA, SD, SL, SZ, TZ,	UG, ZM, ZW, AM,
AZ, BY,	KG, KZ, MD	, RU, TJ,	TM, AT, BE, BG, CH,	CY, CZ, DE, DK,
EE, ES,	FI, FR, GB	, GR, HU,	IE, IT, LU, MC, NL,	PL, PT, RO, SE,
SI, SK,	TR, BF, BJ	, CF, CG,	CI, CM, GA, GN, GQ,	GW, ML, MR, NE,

		SN,	TD,	TG														
US	20050	04335	57		A1	20	005	0224	1	US	200	04-	9157	43		2	0040	811
AU	20042	26623	32		A1	20	005	0303		ΑU	200	04-3	2662	32		2	0040	811
CA	25340	065			A1	20	005	0303	(	CA	200	04-3	2534	065		2	0040	811
EP	16640	026			A1	20	006	0607		EΡ	20	04-	7807	91		2	0040	811
	R:	ΑT,	BE,	CH,	DE,	DK, I	ES,	FR,	GB,	GR	≀, :	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FI, I	RO,	CY,	TR,	BG	3, (	CZ,	ΕE,	HU,	PL,	SK,	HR	
CN	1839	128			Α	20	006	0927	(	CN	20	04-	8002	3309		2	0040	811
BR	20040	01358	30		Α	20	006	1017		BR	20	04-3	1358	0		2	0040	811
US	20062	23498	34		A1	20	006	1019	1	US	20	06-	5676	76		2	0060	209
NO	20060	00119	94		Α	2	006	0505	1	NO	20	06-3	1194			2	0060	314
PRIORITY	APPI	۱N. 2	INFO	. :					1	US	20	03-	4956	37P		P 2	0030	815
									1	US	20	04-	5635	80P		P 2	0040	419
									1	US	20	03-	5126	80P		P 2	0031	020
									1	US	20	04-	5635	86P		P 2	0040	419
									1	WO	20	04-1	US25	980		W 2	0040	811
									1	WO	20	04-1	US26	012		W 2	0040	811

OTHER SOURCE(S):

MARPAT 142:280064

GI

$$\begin{bmatrix} R^4 \\ n \end{bmatrix}$$

$$R^3$$

$$R^1$$

$$R^1$$

$$R^{10}$$

$$R^{10$$

The present invention relates to dihydropyrrole compds. I [R1, R2 = H, alkyl, AB aryl, etc.; R3 = H, alkyl, CH2OH, etc.; R4 = CO2H, halo, CN, etc.; R5 = H, halo, CN, etc.; R10, R11 = F, CH2F; R12, R13 = H, CH2F; R14 = absent, oxo; n =0-3; t = 0-2; u = 0-1] that are useful for treating cellular proliferative diseases, for treating disorders assocd. with KSP kinesin activity, and for inhibiting KSP kinesin. E.g., a multi-step synthesis of II, which showed an IC50 of .ltoreq. 50 .mu.M in kinesin ATPase in vitro assay, was given. The invention is also related to compns. which comprise these compds. I, and methods of using them to treat cancer in mammals. 7

REFERENCE COUNT:

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2005:177831 CAPLUS Full-text

DOCUMENT NUMBER:

142:280071

TITLE:

Preparation of dihydropyrrolecarboxamides as mitotic

kinesin inhibitors for treating cancer

INVENTOR(S):

Coleman, Paul J.; Cox, Christopher D.

PATENT ASSIGNEE(S):

Merck & Co., Inc., USA

SOURCE:

PCT Int. Appl., 177 pp.

.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	TENT :	KIND DATE				1	APPL	ICAT	ION I	DATE								
WO	WO 2005018547						A2 20050303			WO 2	004-1	JS25	20040811					
WO	WO 2005018547					A3 20050915							-					
	<b>W</b> :	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,	
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	ΚZ,	LC,	
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	
		TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	ŪĠ,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZM,	ZW	
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZM,	ZW,	AM,	
		AZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,	
		SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	
		SN,	TD,	TG														
AU	AU 2004266629					A1 20050303					2004-	2666	20040811					
CA	2533	889			A1	2005	0303	(	CA 2	2004 -	2533	20040811						
EP	EP 1656146				A2 20060517				]	EP 2	2004 -	7807	20040811					
	R:	AT,	ΒE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
		ΙE,	SI,	LT,	LV,	FI,	· RO,	CY,	TR,	BG,	CZ,	EE,	HU,	PL,	SK			
CN	1835	756	•		Α		2006	0920	(	CN 2	2004-	8002	3307		2	0040	811	
PRIORITY APPLN. INFO.:									1	US 2	2003-4	4957	35P	P 20030815				
			*			1	WO 2	2004-1	US25	964	1	W 2	0040	811				
OTHER S		MARPAT 142:280071																

#### \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

The present invention relates to dihydropyrrole compds. I [R1, R2 = H, alkyl, aryl, etc.; R3 = H, alkyl, CH2OH, etc.; R4 = CO2H, halo, CN, etc.; R5 = H, halo, CN, etc.; R10 = H, F; R11, R12 = F, CH2F; R13, R14 = H, CH2F; R15 = absent, oxo; n = 0-3; t, u = 0-2] that are useful for treating cellular proliferative diseases, for treating disorders assocd. with KSP kinesin activity, and for inhibiting KSP kinesin. E.g., a multi-step synthesis of a mixt. of II and III, which showed an IC50 of .ltoreq. 50 .mu.M in kinesin ATPase in vitro assay, was given. Over 260 compds. I were claimed. The invention is also related to compns. which comprise these compds. I, and methods of using them to treat cancer in mammals.

L13 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2005:158826 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER:

142:261392

TITLE:

GI

Preparation of pyrrole derivatives as mitotic kinesin

inhibitors

INVENTOR(S):

Coleman, Paul J.; Cox, Christopher D.

PATENT ASSIGNEE(S):

Merck & Co., Inc., USA PCT Int. Appl., 98 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

1

PATENT INFORMATION:

PATENT NO.	KIND DATE	APPLICATION NO.	DATE				
WO 2005017190	A2 20050224	WO 2004-US26242	20040811				
WO 2005017190	A3 20051215						
W: AE, AG, AL,	AM, AT, AU, AZ,	BA, BB, BG, BR, BW,	BY, BZ, CA, CH,				
CN, CO, CR,	CU, CZ, DE, DK,	DM, DZ, EC, EE, EG,	ES, FI, GB, GD,				
GE, GH, GM,	HR, HU, ID, IL,	IN, IS, JP, KE, KG,	KP, KR, KZ, LC,				
LK, LR, LS,	LT, LU, LV, MA,	MD, MG, MK, MN, MW,	MX, MZ, NA, NI,				
NO, NZ, OM,	PG, PH, PL, PT,	RO, RU, SC, SD, SE,	SG, SK, SL, SY,				
TJ, TM, TN,	TR, TT, TZ, UA,	UG, US, UZ, VC, VN,	YU, ZA, ZM, ZW				
RW: BW, GH, GM,	KE, LS, MW, MZ,	NA, SD, SL, SZ, TZ,	UG, ZM, ZW, AM, .				
AZ, BY, KG,	KZ, MD, RU, TJ,	TM, AT, BE, BG, CH,	CY, CZ, DE, DK,				
EE, ES, FI,	FR, GB, GR, HU,	IE, IT, LU, MC, NL,	PL, PT, RO, SE,				
SI, SK, TR,	BF, BJ, CF, CG,	CI, CM, GA, GN, GQ,	GW, ML, MR, NE,				
SN, TD, TG							
AU 2004264533	A1 20050224	AU 2004-264533	20040811				
CA 2534729	A1 20050224	CA 2004-2534729	20040811				
EP 1656133	A2 20060517	EP 2004-780997	20040811				
R: AT, BE, CH,	DE, DK, ES, FR,	GB, GR, IT, LI, LU,	NL, SE, MC, PT,				
IE, SI, LT,	LV, FI, RO, MK,	CY, AL, TR, BG, CZ,	EE, HU, PL, SK, HR				
CN 1835746	A 20060920	CN 2004-80023308					
US 2006287302	A1 20061221	US 2006-568000	20060210				
PRIORITY APPLN. INFO.:		US 2003-495466P	P 20030815				
		WO 2004-US26242	W 20040811				
OTHER SOURCE(S):	MARPAT 142:2613	92					

$$\begin{array}{c|c}
R^4 & R^3 \\
R^{1N} & 0 \\
R^{11} & R^{10} \\
R^2 & R^2 & R^{12}
\end{array}$$

Title compds. represented by the formula I [wherein R1, R2 = independently H, (un)substituted (cyclo)alkyl, aryl, heterocyclyl; R3 = H, alkyl(hydroxy), alkenyloxyalkyl, etc.; R4 = independently (carbonyl)(oxy)alkyl, carboxy, OH, etc.; R5 = H, halo, CN, etc.; R10 = F or CH2F; R11, R12 = independently H or CH2F; Rx = absent or oxo; m = 0-2; n = 0-3; and pharmaceutically acceptable salts or stereoisomers thereof] were prepd. as mitotic kinesin inhibitors (no data). For example, I (R1 = R2 = Me, R3 = CH2OH, R4 = 2,4-F2, R5 = R10 = R12 = H, R11 = F, Rx = absent, n = 0) was given in a multi-step synthesis starting from .alpha.-allyl-.alpha.-phenylglycine Et ester. The title compds. and their pharmaceutical compns. are useful as mitotic kinesin inhibitors, esp.

KSP kinesin inhibitors, for the treatment of cellular proliferative diseases and disorders assocd. with KSP kinesin activity, such as cancer in mammals (no data).

L13 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2005:140806 CAPLUS Full-text

DOCUMENT NUMBER:

142:240324

TITLE:

A preparation of pyrrolecarboxamide derivatives,

useful as mitotic kinesin inhibitors

INVENTOR(S):

Coleman, Paul J.; Cox, Christopher D.; Garbaccio,

Robert M.; Hartman, George D.

PATENT ASSIGNEE(S):

USA

SOURCE:

U.S. Pat. Appl. Publ., 52 pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.						DATE		APPLICATION NO.									
US 2	US 2005038074 WO 2005019205			A1		20050217		1	US 2	004-		20040811						
	W: AE, AG, AL,																	
		•	•	•	•	•	•		-	-								
	C	CN, C	0,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
	G	SE, G	Н,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KΡ,	KR,	ΚZ,	LC,	
	Ĺ	K, L	R,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	
		ю, и																
	T	IJ, T	м, '	TN,	TR,	TT,	TZ,	UA,	ŪĠ,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	zw	
1	RW: E	зw, G	н, (	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	
	P	AZ, B	Υ,	KG,	ΚZ,	MD,	RU,	TJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	
	E	ΞE, Ε	S,	FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,	
		sī, s																
	S	SN, T	D, '	TG														
BR 2	BR 2004013580						2006	1017	BR 2004-13580						20040811			
NO 2	NO 2006001194						2006	0505	NO 2006-1194						20060314			
PRIORITY APPLN. INFO.:									US 2003-495637P						P 20030815			
									US 2003-512680P						P 20031020			
					1	US 2	004-	5635	86P		P 2	0040	419					
											004-1					0040	811	
OTHER SOURCE(S):					CASI	REAC	T 14	2:24	0324	; MA	RPAT	142	:240	324				

## \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

The invention relates to a prepn. of pyrrolecarboxamide derivs. of formula I [wherein: R1 is H, alkyl, aryl, or heterocyclyl, etc.; R2 is 4-piperidinyl deriv.; R3 is H, alkyl, alkdiyl-OH, alkdiyl-O-alkyl, or alk(en/yn)diyl-C(O)-NH2, etc.; R4 is CO2H, halogen, CN, or OH, etc.; R5 is H, CO2H, CN, halogen, or OP(:O)(OH)2, etc.], useful for treating cellular proliferative diseases, for treating disorders assocd. with KSP kinesin activity, and for inhibiting KSP kinesin. The invention is also related to compns. which comprise these compds., and methods of using them to treat cancer in mammals. For instance, pyrrolecarboxamide deriv. II (kinesin ATPase in vitro assay: IC50 < 50 .mu.M) was prepd. via amidation of carbamoyl chloride III by amine IV (conversion of III to the product was >98%).

1 Current app/

L13 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2004:368866 CAPLUS Full-text

DOCUMENT NUMBER:

140:391193

TITLE:

Preparation of dihydropyrroles as mitotic kinesin

inhibitors for treating cellular proliferative

diseases

INVENTOR(S):

Breslin, Michael J.; Coleman, Paul J.; Cox,

Christopher D.; Hartman, George D.; Mariano, Brenda J.

PATENT ASSIGNEE(S):

Merck & Co., Inc., USA

SOURCE:

PCT Int. Appl., 178 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.											ICAT:								
	WO	2004	A2 20040506																	
	WO	2004037171				A3		20040708												
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,		
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	GE,		
			GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KR,	ΚZ,	LC,	LK,	LR,		
			LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,		
			PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	TM,	TN,		
									UZ,											
		RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	BY,		
			KG,	KZ,	MD,	RU,	TJ,	TM,	Α̈́Τ,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,		
									IT,											
									GA,											
	CA	2500	848			A1		2004	0506		CA 2	003-	2500	848		2	0031	014		
								2004	0513	AU 2003-287057						20031014				
	EP 1556052									]	EP 2	003-	7775	20031014						
			AT,																	
									MK,											
	JР	2006																,		
	US	2006	1001	91		A1 20060511			1	US 2	005-	5314								
PRIC		APP										002-								
		٠.										003-					0030			
										٠,	WO 2	003-1	US32	405		W 2	0031	014		

OTHER SOURCE(S):

MARPAT 140:391193

GΙ

AB Title compds. I [wherein R1 = (un) substituted acyl(alkyl), carbamoyl(alkyl), sulfamoyl(alkyl), aryl, heterocyclyl, alkyl, etc.; R2 and R6 = independently (un) substituted aryl(alkyl), cycloalkyl, or heterocyclyl; R3 = (un) substituted alkoxyalk(en/yn)yl, carbamoylalk(en/yn)yl, alkylsulfonylalk(en/yn)yl, etc.; R4, R5, and R7 = independently H or (un)substituted (cyclo)alkyl, alkenyl, alkynyl, perfluoroalkyl, arylalkyl, or heterocyclyl; or R5 and R7 are combined to form an oxo or sulfoxo; or pharmaceutically acceptable salt of stereoisomer thereof] were prepd. for treating cellular proliferative diseases, for treating disorders assocd. with KSP kinesin activity, and for inhibiting KSP kinesin. The invention is also related to compns. which comprise these compds., and methods of using them to treat cancer (no data). For instance, palladium catalyzed Suzuki coupling of 7a-phenyldihydro-1H-pyrrolo[1,2c][1,3]oxazole-3,6(5H)-dione (multi-step prepn. given) and 2,5difluorophenylboronic acid afforded 6-(2,5-difluorophenyl)-7a-phenyl-5,7adihydro-1H-pyrrolo[1,2-c][1,3]oxazol- 3-one. The pyrrolooxazolone was treated. with NaOH in EtOH to give the (hydroxymethyl)pyrrole, which was O-protected with tert-butyldimethylsilyl chloride. Reaction of the pyrrole with triphosgene and dimethylamine, followed by deprotection using triethylamine trihydrofluoride in MeCN provided II. In a kinesin ATPase assay using a human KSP motor domain construct and microtubules from bovine brain tubulin, example compds. inhibited the ATPase hydrolysis reaction with IC50 .ltoreq. 50 .mu.M.

=> file reg COST IN U.S. DOLLARS SINCE FILE TOTAL SESSION ENTRY FULL ESTIMATED COST 24.04 582.52 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION -5.46 -10.92 CA SUBSCRIBER PRICE

FILE 'REGISTRY' ENTERED AT 15:37:07 ON 05 JAN 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 4 JAN 2007 HIGHEST RN 916790-89-1 DICTIONARY FILE UPDATES: 4 JAN 2007 HIGHEST RN 916790-89-1

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TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

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http://www.cas.org/ONLINE/UG/regprops.html

Uploading C:\Documents and Settings\ychu\Desktop\Case\10531495\10531495AA-3.str

21-9

chain nodes :

6 7 8 9 10 13 15 16 17 21 22

ring nodes :
1 2 3 4 5
chain bonds :

1-6 3-22 5-10 5-21 6-7 6-13 8-22 9-21 10-15 15-16 15-17

ring bonds :

1-2 1-5 2-3 3-4 4-5

exact/norm bonds :

1-2 1-5 1-6 2-3 3-4 4-5 6-7 6-13 15-16 15-17

exact bonds :

3-22 5-10 5-21 8-22 9-21 10-15

G1:C,N

G2:0,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:Atom 9:Atom 10:CLASS

13:CLASS 15:CLASS 16:CLASS 17:CLASS 21:CLASS 22:CLASS

Generic attributes :

8 :

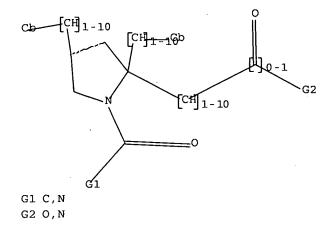
Saturation : Unsaturated

9:

Saturation : Unsaturated

L14 STRUCTURE UPLOADED

=> d L14 HAS NO ANSWERS L14 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 114

SAMPLE SEARCH INITIATED 15:37:59 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 901 TO ITERATE

100.0% PROCESSED 901 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 16220 TO 19820

PROJECTED ANSWERS: 0 TO

L15 0 SEA SSS SAM L14

=> s 114 full

FULL SEARCH INITIATED 15:38:11 FILE 'REGISTRY'

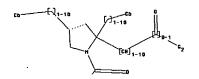
FULL SCREEN SEARCH COMPLETED - 17532 TO ITERATE

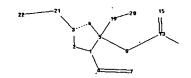
100.0% PROCESSED 17532 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

L16 0 SEA SSS FUL L14

Uploading C:\Documents and Settings\ychu\Desktop\Case\10531495\10531495AA-4.str





chain nodes :

6 7 8 11 13 14 15 19 20 21 22

ring nodes :
1 2 3 4 5
chain bonds :

 $1-6 \quad 3-21 \quad 5-8 \quad 5-19 \quad 6-7 \quad 6-11 \quad 8-13 \quad 13-14 \quad 13-15 \quad 19-20 \quad 21-22$ 

ring bonds :

1-2 1-5 2-3 3-4 4-5

exact/norm bonds :

1-2 1-5 1-6 2-3 3-4 4-5 6-7 6-11 13-14 13-15

exact bonds :

3-21 5-8 5-19 8-13 19-20 21-22

G1:C,N

G2:0,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 11:CLASS

13:CLASS

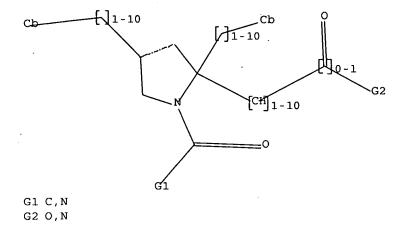
14:CLASS 15:CLASS 19:CLASS 20:Atom 21:CLASS 22:Atom

L17 STRUCTURE UPLOADED

=> d

L17 HAS NO ANSWERS

L17 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 117

SAMPLE SEARCH INITIATED 15:40:16 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 901 TO ITERATE

100.0% PROCESSED 901 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 16220 TO 19820

PROJECTED ANSWERS: 0 TO 0

L18 0 SEA SSS SAM L17

=> s 117 full

FULL SEARCH INITIATED 15:40:27 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 17532 TO ITERATE

100.0% PROCESSED 17532 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

L19 0 SEA SSS FUL L17

---Logging off of STN---

Executing the logoff script...

=> LOG Y

=>

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 346.45 928.97

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION

CA SUBSCRIBER PRICE 0.00 -10.92

STN INTERNATIONAL LOGOFF AT 15:41:13 ON 05 JAN 2007